DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453

(707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-014234

Address: 333 Burma Road **Date Inspected:** 20-May-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Guo Yenfei **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** Bay 9 and 12

Summary of Items Observed:

On this day Caltrans OSM Quality Assurance (QA) Inspector Christopher D'souza was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China. QA Inspector observed and/or found the following:

Bay 12

QA inspector performed conventional Ultrasonic (UT) Inspection on deck panel tack weld areas. The inspection is preliminary prior to using the phased array (PAUT) testing system to verify indications found with conventional Ultrasonic testing. QA inspector performed UT on deck panel DP3121-001, 5 ribs, 10 welds, 250 total tack welds inspected.

Weld 1 scanned 25 locations with 6 indications.

Weld 2 scanned 25 locations with 2 indications.

Weld 3 scanned 25 locations with 3 indications.

Weld 4 scanned 25 locations with 1 indication.

Weld 5 scanned 25 locations with 1 indication.

Tack weld locations found non-compliant are marked on U-rib and deck plate for ZPMC's reference for repair. See Caltrans U-rib to Deck Panel- Tack Weld Assessment sheets dated 20th May, 2010 for further information on PAUT inspections.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of OBG components previously accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3. The QA Inspector observed no rejectable indications at the time of testing. Weld identification numbers were

DP3152-001-171, 172 DP3151-001-169,170 DP3144-001-223,224

This inspector performed In- Process inspections of production welding of deck panels in Bay 9. Welding was being performed on panel DP3125-001. The weld procedure was found to be WPS-B-T-2342-U1-(U-rib)-5. The welding operators were identified as follows:

059418 Weld 1-Weld 2-059421 Weld 3-059416 Weld 4-201788 Weld 5-059416 Weld 6-201788

ZPMC and ABF QC were present during the welding process and identified as Zhu Zhong Jie and Huang Wen Guang respectively. The ZPMC CWI was present during the welding process and identified as Guo Yanfei.

During SAW welding process, the welding parameters were verified by this inspector and were as follows:

Head 3, Weld 1-69.1 Amps, 30.5 Volts

Head 4, Weld 2- 68.7 Amps, 30.5 Volts

Head 5, Weld 5-69.0 Amps, 30.8 Volts

Head 6, Weld 6-68.8 Amps, 30.3 Volts

Head 5, Weld 3-68.5 Amps, 30.0 Volts

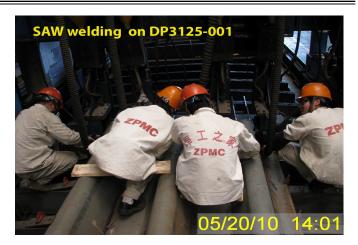
Head 6, Weld 4- 69.0 Amps, 30.0 Volts

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)





Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Dsouza, Christopher	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer